Benchmark System Summary		State:	OHIO	MLRA / CRA: 111
		State.	Offic	Location Area: West-Central Ohio
Land Use: Croplan	d			Benchmark System Description
Template Label: Crop 2-	5%, SWP	SWP		The cropland is somewhat poorly drained on 2-6% slopes (average
System Name/Phrase:	•	SWP Dra	ined, Silt Loam Soil	3%). Corn and soybeans are grown in rotation. Tillage for soybeans includes fall chiseling followed by two spring secondary operations. Approximately 20% corn residue remains after drilling
Existing F				soybeans. Tillage for corn includes one spring field cultivation with
Conservation Cro		28		about 10% soybean residue after planting corn. Erosion is above tolerable soil loss of 3 tons/ac/yr. The soil crusts severely and has
()			poor tilth. Wildlife habitat is marginal.
				<mark>-</mark>
	i			
Resouce Concerns			rk Effects	
Soil Erosion; Sheet & Rill	Erosion is ab ton/ac/yr.	ove tolera	able levels of 3	
Soil Erosion; Concentrated Flow			occuring in the as about 18" by 6-8"	
Soil Condition; Tilth, Crusting, Infiltration, Organic Matter	Crusting impacts crop emergence and water infiltration.			er
Water Quantity, Subsurface; Excess Water	The wet soils delay crop planting and impact crop growth and yield.			oct
Water Quality, Surface Water; Pesticides,	The high eros	sion and e	extensive use of	<mark>-</mark>
Nutrients, Organics, Sediment	fertilizer and _l	pesticides	s impact water quali	y.
Plants, Cropland Productivity			% under yield id drainage problem	s.
Animal Habitat, Wildlife: Food, Water, Cover, Shelter			cover for wildlife are rooded areas.	
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Candidate Practices - Phy	Candidate Practices - Physical Effects State: OHIO					LRA / CRA: 111		Pag	Page 1 of 2	
					Location Area: West-Central Ohio					
Land Us	se: (Cropland			Benchmark System Description					
Template Lab	el: (Crop 2-6%, SWP			The cropland is somewhat poorly drained on 2-6% slopes (average 3%). Corn and soybeans are grown in rotation. Tillage for soybeans includes fall chiseling followed by two spring secondary					
System Name/Phras		Cropland, 2-6% Slope	s, SWP Drained, Silt Lo	oam Soils	operations one spring		orn residue remains af out 10% soybean resid	ter drilling soybeans. due after planting corn	Tillage for corn includes Erosion is above	
Resource Concerns >	5	Soil Erosion; Sheet & Rill	Soil Erosion; Concentrated	Soil Condition	; Tilth,	Water Quantity,	Water Quality, Surface	Plants, Cropland	Animal Habitat, Wildlife:	
Candidate Practices ST=Short Term LT=Long Term	m		Flow	Crusting, Infili	,	Subsurface; Excess Water	Water; Pesticides, Nutrients, Organics, Sediment	Productivity	Food, Water, Cover, Shelter	
Conservation Crop Rotation -	ST	SI Decrease	Facilitating	SI De	crease	N/A	SI Decrease	SI Decrease	Facilitating	
	Т.	SI Decrease	Facilitating	SI De	crease	N/A	SI Decrease	SI Decrease	Facilitating	
Cover & Green Manure Crop -	ST	Mod Decrease	SI Decrease		crease	SI Decrease	Mod Decrease	SI Decrease	Mod Decrease	
340 l	_T	Mod Decrease	SI Decrease	Mod D	ecrease	SI Decrease	Mod Decrease	SI Decrease	Mod Decrease	
Contour Buffer Strips - 332 S	ST	SI Decrease	SI Decrease	SI De	crease	SI Increase	Mod Decrease	SI Decrease	SI Decrease	
·	т.	SI Decrease	SI Decrease	SI De	crease	SI Increase	Mod Decrease	SI Decrease	SI Decrease	
l	ST.	N/A	Insignificant		/A	N/A	SI Decrease	N/A	SI Decrease	
	т.	N/A	Insignificant	N	/A	N/A	SI Decrease	N/A	Mod Decrease	
Filter Strip - 393A	ST	N/A	Insignificant		/A	N/A	Sig Decrease	N/A	Mod Decrease	
· I	т.	N/A	Insignificant	N	/A	N/A	Sig Decrease	N/A	Mod Decrease	
Grade Stabilization Structure -	ST	N/A	SI Decrease	N	/A	N/A	SI Decrease	N/A	N/A	
410 I	_T	N/A	SI Decrease	N	/A	N/A	SI Decrease	N/A	N/A	
Grassed Waterway - 412	ST	N/A	Sig Decrease	N	/A	N/A	Mod Decrease	N/A	SI Decrease	
, i	т.	N/A	Sig Decrease	N	/A	N/A	Mod Decrease	N/A	SI Decrease	
Nutrient Management - 590	ST	Facilitating	N/A	Facil	itating	N/A	Sig Decrease	SI Decrease	SI Decrease	
Ī	т.	Facilitating	N/A	Facil	itating	N/A	Sig Decrease	SI Decrease	SI Decrease	
Pest Management - 595	ST	N/A	N/A	N	/A	N/A	Sig Decrease	SI Decrease	SI Decrease	
	_T	N/A	N/A	N	/A	N/A	Sig Decrease	SI Decrease	SI Decrease	
Residue Management, Mulch	ST	Mod Decrease	SI Decrease	Mod D	ecrease	SI Increase	Sig Decrease	SI Decrease	SI Decrease	
	Т.	Mod Decrease	SI Decrease	Mod D	ecrease	SI Increase	Sig Decrease	Mod Decrease	SI Decrease	
Residue Management, No-till & S	ST	Sig Decrease	SI Decrease	Sig De	crease	SI Increase	Sig Decrease	Mod Decrease	SI Decrease	
_	Т.	Sig Decrease	SI Decrease		crease	SI Increase	Sig Decrease	Sig Decrease	SI Decrease	
Subsurface Drain - 606	ST	SI Decrease	Facilitating		crease	Sig Decrease	SI Increase	Sig Decrease	N/A	
I	т.	SI Decrease	Facilitating	Sig De	crease	Sig Decrease	SI Increase	Sig Decrease	N/A	
Water & Sediment Control	ST	Facilitating	Sig Decrease	N	/A	N/A	Sig Decrease	N/A	N/A	
<u> </u>	Т.	Facilitating	Sig Decrease		/A	N/A	Sig Decrease	N/A	N/A	
0 \$	ST	J	Ĭ				j			
I	Т.									
0 \$	ST									
<u> </u>	т.									

Candidate Practices - Ph	vsio	cal Effects	State: OHIO			-RA / CRA: 111		Page	2 of 2		
	•				Location Area: West-Central Ohio						
Land U	se:	Cropland			Benchmark System Description						
Template Lal	oel:	Crop 2-6%, SWP			The cropland is somewhat poorly drained on 2-6% slopes (average 3%). Corn and soybeans are						
Cropland, 2-6% Slopes, SWP Drained, Silt Loam Soils System Name/Phrase:					grown in rotation. Tillage for soybeans includes fall chiseling followed by two spring secondary operations. Approximately 20% corn residue remains after drilling soybeans. Tillage for corn includes one spring field cultivation with about 10% soybean residue after planting corn. Erosion is above tolerable soil loss of 3 tons/ac/yr. The soil crusts severely and has poor tilth. Wildlife habitat is marginal.						
Resource Concerns >		0	0		0	0	C	(0		
Candidate Practices ST=Short Term LT=Long Te	rm										
	ST										
328	LT										
Cover & Green Manure Crop -	ST							#N/A			
	LT ST							#N/A			
	LT										
Field Border - 386	ST										
	LT										
	ST										
	LT ST										
	LT										
	ST										
II	LT										
	ST										
_	LT										
Pest Management - 595	ST										
	LT										
Residue Management, Mulch	ST										
	LT										
Residue Management, No-till &	ST										
	LT										
	ST										
	LT										
	ST										
	LT										
	ST										
	LT										
	ST										
	LT										

Resource Management S	Svet	om #1	State: OHIO		LRA / CRA: 111		Pag	e 1 of 2		
Resource management	Jyst	CIII # I	Otate. Offic	Location Area: West-Central Ohio						
l am d l		Onemiend	Alternative Resource Management System #1 Narrative Description							
Land C	se:	Cropland	The rotation will be changed to C-Sb-S-Sb-Wheat. The soybeans will be no tilled into the corn stubble. The soybean stubble will be spring field cultivated for corn. The wheat stubble will be fall chiseled for corn. The wheat will be no tilled into Sb residue. Soils will be tested for nutrients and nutrients applied per soil test results. Pesticides will be applied with more care and selection based on runoff risk. The ephemeral erosion will be addressed by the grassed waterways and grade stabilization structures. Filter strips will be established adjacent to the ditches and streams to filter sediment, nutrients, and pesticides. The system working together will address the resource concerns.							
Template La	bel:	Crop-2-6%, SWP, HT								
System Name/Phrase	SW	pland, 2-6% Slopes, P Drained, Silt Loam, Treatment								
Resource Concerns >		Soil Erosion; Sheet & Rill	Soil Erosion; Concentrated	Soil Condition; Tilth,	Water Quantity,	Water Quality, Surface	Plants, Cropland	Animal Habitat, Wildlife:		
Candidate Practices			Flow	Crusting, Infiltration,	Subsurface; Excess Water	Water; Pesticides,	Productivity	Food, Water, Cover,		
ST=Short Term LT=Long Te	rm			Organic Matter		Nutrients, Organics, Sediment		Shelter		
Conservation Crop Rotation -	ST	+1	+	+1	N/A	+1	+1	+		
328	LT	+1	+	+1	N/A	+1	+1	+		
	ST	N/A	0	N/A	N/A	+3	N/A	+2		
	LT	N/A	0	N/A	N/A	+3	N/A	+2		
Grade Stabilization Structure -	ST	N/A	+1	N/A	N/A	+1	N/A	N/A		
410	LT	N/A	+1	N/A	N/A	+1	N/A	N/A		
	ST	N/A	+3	N/A	N/A	+2	N/A	+1		
-	LT	N/A	+3	N/A	N/A	+2	N/A	+1		
Nutrient Management - 590	ST	+	N/A	+	N/A	+3	+1	+1		
	LT	+	N/A	+	N/A	+3	+1	+1		
Pest Management - 595	ST	N/A	N/A	N/A	N/A	+3	+1	+1		
	LT	N/A	N/A	N/A	N/A	+3	+1	+1		
Residue Management, Mulch	ST	+2	+1	+2	-1	+3	+1	+1		
till - 329B	LT	+2	+1	+2	-1	+3	+2	+1		
Residue Management, No-till &	ST	+3	+1	+3	-1	+3	+2	+1		
Strip Till - 329A	LT	+3	+1	+3	-1	+3	+3	+1		
Subsurface Drain - 606	ST	+1	+	+1	+3	-1	+3	N/A		
	LT	+1	+	+3	+3	-1	+3	N/A		
0	ST	0	0	0	0	0	0	0		
	LT	0	0	0	0	0	0	0		
0	ST	0	0	0	0	0	0	0		
	LT	0	0	0	0	0	0	0		
0	ST	0	0	0	0	0	0	0		
	LT	0	0	0	0	0	0	0		

Resource Management S	21/04	om #1	State: OHIO	M	LRA / CRA: 111		Page 2 of 2			
Resource Management s	bysi	em#1	State. Onto	Loc	ation Area: West-Cen	tral Ohio				
			Alternative Resource Management System #1 Narrative Description							
Land U	lse:	Cropland					orn stubble. The soybean stubble will be vill be no tilled into Sb residue. Soils will			
Template La	bel:	Crop-2-6%, SWP, HT	tested for nutrients and nutrients applied per soil test results. Pesticides will be applied with more care and selection based on runoff risk. The ephemeral erosion will be addressed by the grassed waterways and grade stabilization structures. Filter strips will be established adjacent to the ditches and streams to filter sediment, nutrients, and pesticides. The system working together will address the resource concerns.							
System Name/Phrase	SW	pland, 2-6% Slopes, P Drained, Silt Loam, hTreatment								
Resource Concerns >		C	0	()	0				
Candidate Practices										
ST=Short Term LT=Long Te	rm									
Conservation Crop Rotation -	ST	0	0	0	0	0				
328	LT	0	0	0	0	0				
Filter Strip - 393A	ST	0	0	0	0	0				
	LT	0	0	0	0	0				
Grade Stabilization Structure -	ST	0	0	0	0	0				
410	LT	0	0	0	0	0				
	ST	0	0	0	0	0				
	LT	0	0	0	0	0				
Nutrient Management - 590	ST	0	0	0	0	0				
	LT	0	0	0	0	0				
Pest Management - 595	ST	0	0	0	0	0				
	LT	0	0	0	0	0				
	ST	0	0	0	0	0				
till - 329B	LT	0	0	0	0	0				
Residue Management, No-till &	ST	0	0	0	0	0				
Strip Till - 329A	LT	0	0	0	0	0				
Subsurface Drain - 606	ST	0	0	0	0	0				
	LT	0	0	0	0	0				
0	ST	0	0	0	0	0				
	LT	0	0	0	0	0				
0	ST	0	0	0	0	0				
	LT	0	0	0	0	0				
0	ST	0	0	0	0	0				
	LT	0	0	0	0	0				

Resource Management System #2			State: OHIO		MLRA / CRA: 111		Page 1 of 2				
Resource Management	oysı	icili #Z	Location Area: West-Central Ohio								
			Alternative Resource Management System #2 Narrative Description								
Land l	Land Use: Cropland		The rotation will be changed to C-Sb-S-Sb-Wheat. The soybeans will be no tilled into the corn stubble. The soybean stubble will be								
			spring field cultivated	for corn. The wheat	stubble will be fall chisele	d for corn. The wheat v	will be no tilled into Sb	residue. Soils will be			
			tested for nutrients and nutrients applied per soil test results. Pesticides will be applied with more care and selection based on runoff risk.								
Template Label: Crop MT			The ephemeral erosion will be addressed by the grassed waterways and grade stabilization structures. The system working together will address the resource concerns.								
	Cro	pland, 2-6% Slopes,	address the resource	CONCENTS.							
System Name/Phrase	SW	P Drained, Silt Loam.									
		dium Treatment									
Resource Concerns >		Soil Erosion; Sheet & Rill	Soil Erosion; Concentrated	Soil Condition; Tilth,	Water Quantity,	Water Quality, Surface	Plants, Cropland	Animal Habitat, Wildlife:			
Candidate Practices		1	Flow	Crusting, Infiltration,	Subsurface; Excess Water	Water; Pesticides,	Productivity	Food, Water, Cover,			
ST=Short Term LT=Long Te	erm			Organic Matter		Nutrients, Organics, Sediment		Shelter			
Conservation Crop Rotation -	ST	+1	+	+1	N/A	+1	+1	+			
328	LT	+1	+	+1	N/A	+1	+1	+			
Grade Stabilization Structure -	ST	N/A	+1	N/A	N/A	+1	N/A	N/A			
410	LT	N/A	+1	N/A	N/A	+1	N/A	N/A			
	ST	N/A	+3	N/A	N/A	+2	N/A	+1			
	LT	N/A	+3	N/A	N/A	+2	N/A	+1			
Nutrient Management - 590	ST	+	N/A	+	N/A	+3	+1	+1			
	LT	+	N/A	+	N/A	+3	+1	+1			
Pest Management - 595	ST	N/A	N/A	N/A	N/A	+3	+1	+1			
	LT	N/A	N/A	N/A	N/A	+3	+1	+1			
Residue Management, Mulch	ST	+2	+1	+2	-1	+3	+1	+1			
till - 329B	LT	+2	+1	+2	-1	+3	+2	+1			
Residue Management, No-till &		+3	+1	+3	-1	+3	+2	+1			
Strip Till - 329A	LT	+3	+1	+3	-1	+3	+3	+1			
Subsurface Drain - 606	ST	+1	+	+1	+3	-1	+3	N/A			
	LT	+1	+	+3	+3	-1	+3	N/A			
(ST	0	0	0	0	0	0	0			
	LT	0	0	0	0	0	0	0			
	ST	0	0	0	0	0	0	0			
	LT	0	0	0	0	0	0	0			
	ST	0	0	0	0	0	0	0			
	LT	0	0	0	0	0	0	0			
	ST	0	0	0	0	0	0	0			
	LT	0	0	0	0	0	0	0			

Descures Management	21/04	.am #2	Ctata: OUIO	M	LRA / CRA: 111		Page 2 of 2				
Resource Management S	Syst	em #2	State: OHIO	Loc	ation Area: West-Cen	tral Ohio					
			Alternative Resource Management System #2 Narrative Description								
Land l	Jse:	Cropland	The rotation will be changed to C-Sb-S-Sb-Wheat. The soybeans will be no tilled into the corn stubble. The soybean stubble will be spring field cultivated for corn. The wheat stubble will be fall chiseled for corn. The wheat will be no tilled into Sb residue. Soils will be tested for nutrients and nutrients applied per soil test results. Pesticides will be applied with more care and selection based on runoff risk.								
Template La	bel:	Crop MT	The ephemeral erosion address the resource of		the grassed waterways	and grade stabilization	structures. The system working together wil				
System Name/Phrase	sw	pland, 2-6% Slopes, P Drained, Silt Loam, dium Treatment									
Resource Concerns >		(0	C	C	0					
Candidate Practices											
ST=Short Term LT=Long Te	rm										
Conservation Crop Rotation -	ST	0	0	0	0	0					
328	LT	0	0	0	0	0					
Grade Stabilization Structure -	ST	0	0	0	0	0					
410	LT	0	0	0	0	0					
Grassed Waterway - 412	ST	0	0	0	0	0					
	LT	0	0	0	0	0					
lutrient Management - 590	ST	0	0	0	0	0					
	LT	0	0	0	0	0					
Pest Management - 595	ST	0	0	0	0	0					
	LT	0	0	0	0	0					
Residue Management, Mulch	ST	0	0	0	0	0					
till - 329B	LT	0	0	0	0	0					
Residue Management, No-till &	ST	0	0	0	0	0					
Strip Till - 329A	LT	0	0	0	0	0					
Subsurface Drain - 606	ST	0	0	0	0	0					
	LT	0	0	0	0	0					
C	ST	0	0	0	0	0					
	LT	0	0	0	0	0					
C	ST	0	0	0	0	0					
	LT	0	0	0	0	0					
C	ST	0	0	0	0	0					
	LT	0	0	0	0	0					
C	ST	0	0	0	0	0					
	LT	0	0	0	0	0					

Resource Management	Svet	tom #3	State: OHIO		ILRA / CRA: 111		Page	1 of 2			
Nesource Management	tooda. oo managomont oyotom no			Location Area: West-Central Ohio							
			Alternative Resource Management System #3 Narrative Description								
Land (Land Use: Cropland			The rotation will be changed to C-Sb-S-Sb-Wheat. The soybeans will be no tilled into the corn stubble. The soybean stubble will be spring field cultivated for corn. The wheat stubble will be fall chiseled for corn. The wheat will be no tilled into Sb residue. Soils will be tested for nutrients and nutrients applied per soil test results. Pesticides will be applied with more care and selection based on runoff risk. The ephemeral erosion will be							
Template La	bel:	Crop - LT	addressed by the grassed waterways and grade stabilization structures. Mulch tillage will be used to address the delayed planting for corn, The system working together will address the resource concerns.								
System Name/Phrase	SW	ppland, 2-6% Slopes, P Drained, Silt Loams, v Treatment									
Resource Concerns >		Soil Erosion; Sheet & Rill		Soil Condition; Tilth,	Water Quantity,	Water Quality, Surface	Plants, Cropland	Animal Habitat, Wildlife:			
Candidate Practices ST=Short Term LT=Long Te	erm	-	Flow	Crusting, Infiltration, Organic Matter	Subsurface; Excess Water	Water; Pesticides, Nutrients, Organics, Sediment	Productivity	Food, Water, Cover, Shelter			
Conservation Crop Rotation -	ST	+1	+	+1	N/A	+1	+1	+			
328	LT	+1	+	+1	N/A	+1	+1	+			
Grade Stabilization Structure -	ST	N/A	+1	N/A	N/A	+1	N/A	N/A			
410	LT	N/A	+1	N/A	N/A	+1	N/A	N/A			
	ST	N/A	+3	N/A	N/A	+2	N/A	+1			
	LT	N/A	+3	N/A	N/A	+2	N/A	+1			
Nutrient Management - 590	ST	+	N/A	+	N/A	+3	+1	+1			
	LT	+	N/A	+	N/A	+3	+1	+1			
Pest Management - 595	ST		N/A	N/A	N/A	+3	+1	+1			
	LT	N/A	N/A	N/A	N/A	+3	+1	+1			
Residue Management, Mulch	ST		+1	+2	-1	+3	+1	+1			
till - 329B	LT	+2	+1	+2	-1	+3	+2	+1			
Residue Management, No-till &			+1	+3	-1	+3	+2	+1			
Strip Till - 329A	LT	+3	+1	+3	-1	+3	+3	+1			
(ST	0	0	0	0	0	0	0			
	LT	0	0	0	0	0	0	0			
(ST	0	0	0	0	0	0	0			
	LT	0	0	0	0	0	0	0			
(ST	0	0	0	0	0	0	0			
	LT	0	0	0	0	0	0	0			
	ST	0	0	0	0	0	0	0			
	LT	0	0	0	0	0	0	0			
	ST	0	0	0	0	0	0	0			
	LT	0	0	0	0	0	0	0			

Descures Management	C	am #2	State: OHIO	M	LRA / CRA: 111		Page	2 of 2		
Resource Management	Syst	em #3	State: OHIO	Location Area: West-Central Ohio						
			Alternative Resource Management System #3 Narrative Description The rotation will be changed to C-Sb-S-Sb-Wheat. The soybeans will be no tilled into the corn stubble. The soybean stubble will be spring field cultivated for corn. The wheat stubble will be fall chiseled for corn. The wheat will be no tilled into Sb residue. Soils will be tested for nutrients and nutrients applied per soil test results. Pesticides will be applied with more care and selection based on runoff risk.							
Land	Use:	Cropland								
Template La	abel:	Crop - LT				and grade stabilization will address the resource		ge will be used to		
System Name/Phrase	SW	pland, 2-6% Slopes, P Drained, Silt Loams, Treatment								
Resource Concerns >		C	0	0	C	0				
Candidate Practices										
ST=Short Term LT=Long Te	erm									
Conservation Crop Rotation -	ST	0	0	0	0	0				
328	LT	0	0	0	0	0				
Grade Stabilization Structure -	ST	0	0	0	0	0				
410	LT	0	0	0	0	0				
	ST	0	0	0	0	0				
	LT	0	0	0	0	0				
Nutrient Management - 590	ST	0	0	0	0	0				
	LT	0	0	0	0	0				
Pest Management - 595	ST	0	0	0	0	0				
	LT	0	0	0	0	0				
Residue Management, Mulch	ST	0	0	0	0	0				
till - 329B	LT	0	0	0	0	0				
Residue Management, No-till &		0	0	0	0	0				
Strip Till - 329A	LT	0	0	0	0	0				
(ST	0	0	0	0	0				
	LT	0	0	0	0	0				
(ST	0	0	0	0	0				
	LT	0	0	0	0	0				
(ST	0	0	0	0	0				
	LT	0	0	0	0	0				
(ST	0	0	0	0	0				
	LT	0	0	0	0	0				
	ST	0	0	0	0	0				
	LT	0	0	0	0	0				